

Dragon Products Company, Inc.
Cumberland County
Portland, Maine
A-144-71-H-R

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Dragon Products Company, Inc. (Dragon) located in Portland, Maine, has applied to renew their Air Emission License, permitting the operation of emission sources associated with their concrete batch plant and their stone and gravel facility.

B. Emission Equipment

Fuel Burning Equipment

<u>Equipment</u>	<u>Date of Construction</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Fuel Type, %Sulfur</u>	<u>Maximum Firing Rate (gal/hr)</u>
Boiler #1	1996	4.2	#2, 0.5	30
Boiler #2 *	1991	0.3	#2, 0.5	2

*Heat input less than 1.0 MMBtu/hr, noted for inventory purposes only.

Concrete Plant

<u>Equipment</u>	<u>Production Rate (cubic yards/hour)</u>	<u>Control Devices</u>
Concrete Batch Plant	120	5 baghouses: 1-Truck Batching 3-Cement Silos 1-Weigh Hopper

Rock Crushers

<u>Designation</u>	<u>Powered</u>	<u>Process Rate (tons/hour)</u>	<u>Control Devices</u>
Primary	Electrical	120	Spray Nozzles
Secondary	Electrical	100	Spray Nozzles
Tertiary	Electrical	80	Spray Nozzles

C. Application Classification

The application for Dragon does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emission units only.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boiler #1:

A summary of BPT is detailed below:

1. 80,000 gal/year of #2 fuel oil, based on a 12 month rolling total
2. Chapter 106 regulates fuel sulfur content, however the use of 0.5% sulfur by weight fuel is more stringent and shall be used.
3. SO₂ emission data was based on fuel sulfur mass balance.
4. PM and PM₁₀ emission rates were based upon BPT of 0.10 #/MMBtu.
5. NO_x emission rates were based upon BPT of 0.30 #/MMBtu.
6. CO and VOC emission rates were based upon AP-42 data dated 10/98 for boilers with a heat input less than 100 MMBtu/hr.
7. Opacity from Boiler #1 shall not exceed 20% opacity on a six (6) minute block average basis, except for one (1) six (6) minute block average in a 3-hour period.

C. Concrete Batch Plant

To meet the requirements of BPT for control of particulate matter (PM) emissions from the cement silo, particulate emissions shall be vented through a baghouse maintained for 99% removal efficiency. Visible emissions from the cement silo baghouse is limited to no greater than 10% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a

1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity.

All components of the concrete batch plant shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

D. Rock Crushers

The Primary Rock Crusher is a portable unit with a rated capacity of 120 tons/hr. The Secondary Rock Crusher is a portable unit with a rated capacity of 100 tons/hr. The Tertiary Rock Crusher is a portable unit with a rated capacity of 80 tons/hr. EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants applies to fixed rock crushers with capacities greater than 25 tons/hr and portable rock crushers with capacities greater than 150 tons/hr, constructed after August 31, 1983. Therefore, the Primary, Secondary and Tertiary Rock Crushers are not subject to NSPS Subparts A and OOO.

A summary of the BPT analysis for particulate matter is discussed below:

Particulate emissions from the rock crushers is considered to be generally unquantifiable. Therefore, opacity is the proposed means of demonstrating compliance for the crushers and shall be limited to 10% on a six (6) minute block average basis. Dragon shall maintain and operate water sprays as needed for particulate control on the rock crushers to remain below the 10% opacity limit.

E. Stock Piles and Roadways

BPT for all potential sources of fugitive PM emissions, including material stockpiles and roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 20 percent, except for no more than five (5) minutes in any 1-hour period.

F. Annual Emissions

Facility emissions are based on fuel use for Boiler #1 not to exceed 80,000 gallons/year (12 month rolling total) of #2 fuel oil with a maximum sulfur content of 0.5% by weight.

Total Annual Emissions for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/yr</u>
PM	0.6
PM ₁₀	0.6
SO ₂	2.8
NO _x	1.7
CO	0.2
VOC	0.1

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-144-71-H-R, subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).

- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]

- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.

[MEDEP Chapter 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[MEDEP Chapter 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]
- (16) **Boiler #1** [MEDEP Chapter 115, BPT]
- A. Emissions from Boiler #1 shall not exceed the following:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.10	0.42
PM ₁₀	n/a	0.42
SO ₂	n/a	2.12
NO _x	n/a	1.26
CO	n/a	0.15
VOC	n/a	0.01

- B. Visible emissions from Boiler #1 shall not exceed 20% opacity on a six (6) minute block average basis, except for one (1) six (6) minute block average in a 3-hour period.
- C. Fuel use in Boiler #1 shall not exceed 80,000 gallons/year of #2 fuel oil, based on a 12-month rolling total, with a maximum sulfur content of 0.5% by weight. Compliance shall be demonstrated through fuel use records and receipts showing the sulfur content of the fuel, which shall be maintained on a 12-month rolling basis.

(17) Concrete Batch Plant [MEDEP Chapter 115, BPT]

- A. Particulate emissions from the 3 cement silos, weigh hopper, and the truck batching operations shall be vented through each of the respective 5 baghouses and all components of the batch plant shall be maintained so as to prevent PM leaks.
- B. To document maintenance of the five cement batching operation baghouses, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be located at the facility whenever the facility is in operation.
- C. Opacity from the five baghouses is limited to no greater than 10% on a six (6) minute block average basis. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity.
- D. Fugitive PM emissions from the concrete batching operation baghouses shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis.

(18) Rock Crushers [MEDEP Chapter 115, BPT]

- A. Dragon shall operate and maintain spray nozzles as needed for particulate control on the primary, secondary and tertiary rock crushers. Visible emissions from the crushers shall be limited to no greater than 10% opacity based on a 6 minute block average basis.
- B. Dragon shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be located at the facility whenever the facility is in operation.
- C. Dragon shall maintain a log detailing and quantifying the hours of operation on a daily basis for the primary, secondary and tertiary rock crushers. The operation log shall be located at the facility whenever the facility is in operation.
- D. The rock crushers shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation.

(19) Stockpiles and Roadways [MEDEP Chapter 115, BPT]

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

(20) **Equipment Relocation** [MEDEP Chapter 115, BPT]

- A. Dragon shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

(21) Dragon shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.

[MEDEP Chapter 115, BPT]

(22) Dragon shall pay the annual air emission license fee within 30 days of **December 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

[MEDEP Chapter 115, BPT]

(23) The term of this order shall be for five (5) years from the signature date below.

[MEDEP Chapter 115, BPT]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: October 9, 2003

Date of application acceptance: October 15, 2003

Date filed with Board of Environmental Protection: _____

This order prepared by Mark E. Roberts , Bureau of Air Quality